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"Dedicated to Public Service"

THE RADIATOR



W6RHC

IRL #8170



P.O. Box 202 Chico, CA 95927-0508

March 2019 Newsletter

GEARS Founded August 13, 1939

Regular Events

O.A.R.S. GENERAL MEETING Second Friday, of month, 7:00 pm, at St. Paul's Church Parish Hall, 1430 Pine St., Oroville

G.A.R.S. Second Thursday of month, 6:30 pm Lutheran Church Hall, Artois.

G.E.A.R.S General Meeting, third Friday of month, Butte County Search and Rescue Bldg., Chico. Social hour 6:00 pm, meeting at 7:00 pm.

GEARS Breakfast 2nd Saturday of each month 9am Farmers Skillet 1818, 690 Rio Lindo Ave, Chico Everyone Invited.

Board Meetings: 2nd Saturday of each month at the Blood Source Building, Rio Lindo Ave Chico, after the monthly breakfast.

Butte A.R.E.S. 3rd Tuesday at The Veterans Hall, Rio Lindo Chico. Except Nov & Dec.

FCC EXAMS - GEARS VEC First Sunday of every even numbered month, at the Butte County Search and Rescue Building. Written test at 2:00 pm. For information or pre-registration call Gene Wright WA6ZRT 519-2519



Join GEARS on Facebook
www.facebook.com For timely news and additional information.

News

At our February meeting we had the honor of celebrating Gene Wright's 80th birthday. We also had a great presentation by Dan Leon KZ6VT on using a smartphone app to access EchoLink.

At our March meeting Kent Hastings WA6ZFY will be talking about QRP.

Our farewell breakfast for Larry Marcum KA6GND was crowded, every seat was taken. Larry moved up to Oregon. He is now K7GND.

We have a few spots open for members to provide snacks at our meetings. See the signup list and help out if you can.

On a sad note Jim Weir K6QGN became a silent key Tuesday Feb 19th. Our condolences to Evelyn.

I have also included the obituary of John Post AG7J, reprinted from the GARS newsletter.

I've also heard that Jackson Fuller W1FOG broke his arm recently. Hopefully he will recover soon.

73

Jim Matthews K6EST
jiminchico@yahoo.com
 530-893-3314

March Calendar

G.E.A.R.S General Meeting, Friday March 15th, Butte County Search and Rescue Bldg., Chico. Social hour 6:00 pm, meeting at 7:00 pm.

GEARS monthly breakfast Saturday March 9th, 9 am at Farmers Skillet Cohasset and Rio Lindo Chico.

Board Meetings: Saturday March 9th after breakfast at the Blood Source Building

Butte A.R.E.S. Meeting Tuesday 19th, at Chico Veterans Hall 7pm. Contact Dale Anderson, KK6EVS 826-3461 for more information.

VEC Testing Sunday April 7th at the Search and Rescue Building 2 pm.

NETS:

GEARS Club Net Tuesdays 7:30 PM 146.850 MHz - PL 110.9

GARS Club Net: Monday, 7:00 pm 147.105 MHz + PL 110.09

Thursdays Simplex Net 7:30 p.m. 146.52

Sacramento Valley Traffic Net

Nightly 9:00 PM 146.850 MHz - PL 110.9

ARES Nets: Butte Mondays 20:00 145.290 MHz - PL 110.9

Yuba Sutter Thursdays 19:00 146.085 MHz + PL 127.3

Glenn Thursday 19:30 147.105 MHz + PL 100.0

Can you help out with snacks at an upcoming meeting?
If so please contact Contact Kathy Favor 864-2742 kfavor@gmail.com.

2019 GEARS Meeting Snack Sign-up

Meeting Date	Volunteer(s)
Jan 18th	Kathy Favor
Feb 15th	Gene Wright
Mar 15th	Jim Matthews
Apr 19th	Kent Hastings
May 17th	Stephen Wolske
Jun 21th	
Jul 19th	
Aug 16th	Dale Anderson
Sep 20th	Steven Wright
Oct 18th	Tom Rider
Nov 15th	
Dec 20th	Potluck Desert (Everyone)

The Story of the Klystron Tube

They were brothers. Sigurd Varian was a pilot for Pan Am, flying the "Clippers" to Mexico and Central America. He wanted a way to improve navigation. Russell Varian earned a master's degree in physics from Stanford. Together they wanted to work on a new high power tube for microwave.

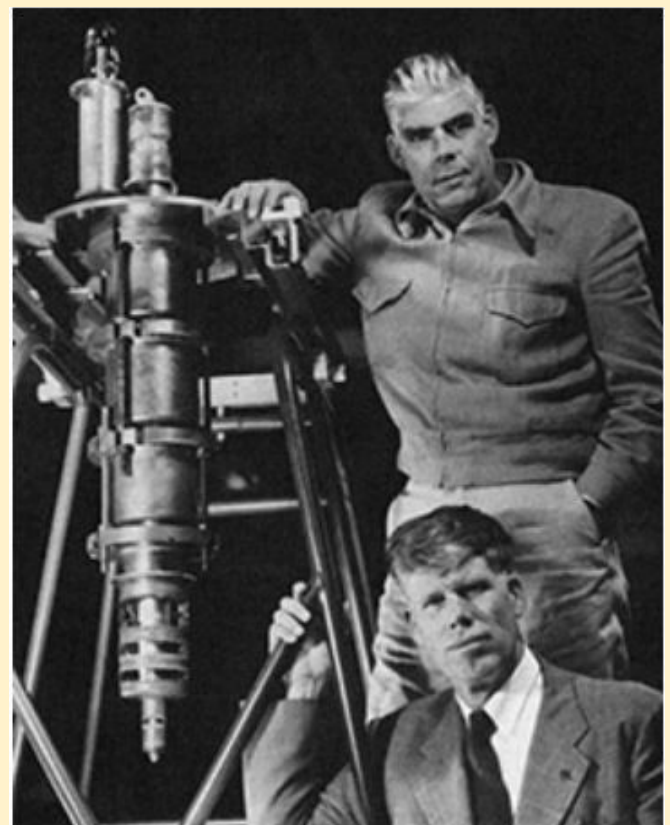
Stanford University provided them with laboratory and shop facilities, the right to consult with faculty members, and \$100 for materials and supplies. Financial returns from their accomplishments were to be divided equally between the university and Russell and Sigurd Varian.



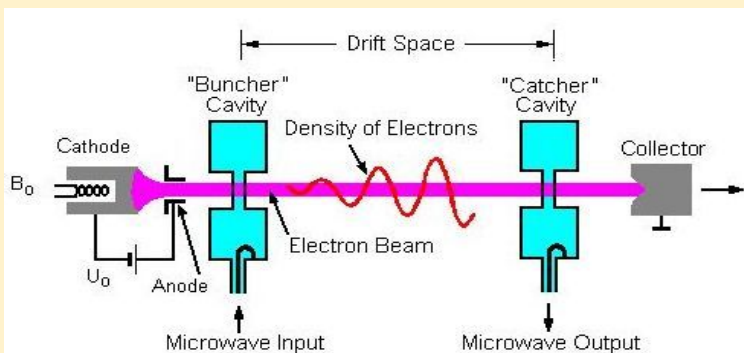
In 1939 they announced the invention of the Klystron. The first stable high-power microwave tube. News of the klystron immediately influenced the work of US and UK researchers working on radar equipment. Once it was implemented everything changed. Nazi bombers could no longer hide in the darkness on their way to London. German and Japanese submarines would be spotted once they surfaced or raised their periscope. The war was now in our favor.

The main purpose of a klystron tube is to generate microwave energy and act as a sensitive amplifier. It basically works on the same concept as a pipe organ tube; the only difference is that pipe organ tube uses air while klystron tube uses electrons.

Air in the pipe organ tube vibrates to emit sound energy. The electrons in a klystron tube vibrate to emit high frequency microwave energy that can be detected by a radar receiver after returning from its target.



Russell and Sigurd Varian with the V-42 klystron used in ultra high-frequency (UHF) television transmission, circa 1953. This klystron was the first of a series of Varian Associates high-power tubes used for radar and communication systems. (photograph by Ansel Adams)





Right after the war, AT&T used 4 watt klystrons in its brand new network of microwave relay links that covered the US continent. This network provided long distance telephone service and also carried television signals for the major TV networks. Western Union Telegraph Company also built point-to-point microwave communication links using intermediate repeater stations at about 40 mile intervals at that time, using 2K25 reflex klystrons in both the transmitters and receivers.

Now klystron tube technology is widely used in the field of UHF television, radars, medicine, satellites, deep space communication, as well as wide-band high-power communication systems. Klystrons are used to make small linear accelerators to generate particle beams for external beam radiation cancer therapy. All these were possible because of their ability to produce high frequency microwave power. It would seem that Stanford University received a big dividend from their \$100 investment.

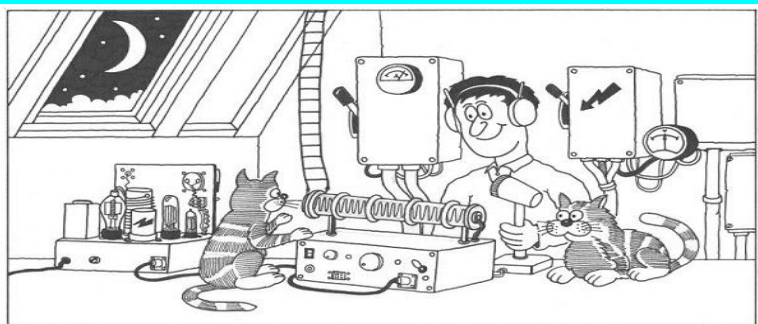
AT&T microwave tower, W 8th Ave., Chico. Built in 1955.

Klystron powered Medical Linear Accelerator for use in treating cancer. Enloe has one.



Club Officers:

President.....Jim Matthews, K6EST
 Vice-President.....Kent Hastings, WA6ZFY
 Secretary.....Stephan Lonis, KM6RSO
 Treasurer.....Kathy Favor, K6FAV
 Director.....Rick Hubbard, KI6VOS
 Director.....Arnott Smith, KF2TM
 Director..... Dale Anderson, KK6EVX
 Past President.....Tom Rider, W6JS



DO YOU HAVE OLD QST MAGAZINES IN SEARCH OF A NEW HOME?

Gene Wright has that future home for your QST's, through his project to place QST Magazines in professional offices throughout Chico. Labels placed on the QST's will advertise the Golden Empire Amateur Radio Society, encourage the readers to consider Ham Radio as an interesting hobby, one of not only fun, but which provides opportunities for many and various community services.

Bring your QST's to Gene at the Club meetings or contact:

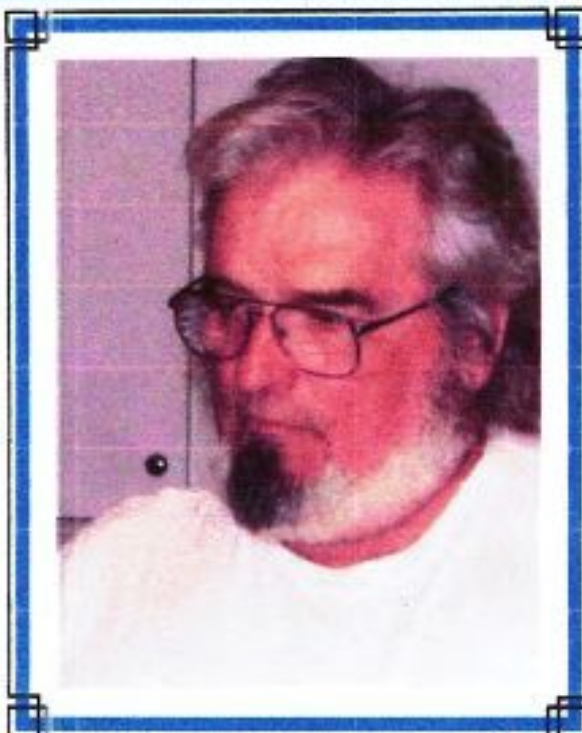
Gene WA6ZRT
 530-519-2519

John Joseph Post—AG7J

Silent Key 1939—2019

AG7J was first licensed in Seattle as N7MEJ. A general license -2003 (KG6SHD) & Amateur Extra 2006, AG7J. In Seattle John was active member of the Mike and Key Amateur Radio Club and Amateur Radio Emergency Services.

He particularly enjoyed Amateur Radio, actively participating in multiple community events through GEARS and GARS; He enjoyed opportunities to be an instructor for Amateur Radio License classes; a volunteer examiner for GEARS VEC sessions; working with Tim Wells-W6TWI at the Lassen Boy Scout summer camp helping Scouts obtain radio merit badges; John was also a member of the Loyal Order of Moose, Orland; A lifetime member of NRA; Past officer with GEARS and GARS.



John was born in Mt Vernon WA. His grandfather owned a shingle mill in Port Angeles, WA, and John was fortunate to spend his formative years in that area. He worked at the shingle mill as a young boy. When "older" (from age 16) during the summer months, he worked for a logging company as a log truck driver.

His early school years were at Queen of Angels, Port Angeles, and St Martin's High School, (residency) at Olympia, Wa. Shortly after graduating from that remarkable institution, John joined the Navy, became a Medic at the Naval Hospital in Bremerton, WA. Upon his discharge he took commercial aviation lessons, his goal—he a commercial pilot. To his dismay, upon obtaining his license, he learned the FAA regulations (at that time) prohibited hire of pilots who wore eyeglasses! So ..he continued flying lessons—acrobatic flying!

John loved challenges and could be viewed as somewhat of a daredevil. From age 16 he was an avid motorcyclist, owning his first - an Indian, later Harley' Davidsons and BMW's. He thoroughly enjoyed the many charitable activities of his several Biker Clubs.

For several years John worked at Boeing Aircraft as a machinist/toolmaker. Bored with Boeing, he started his own trucking business - Post Trucking. After Ten years he returned to his first love, toolmaking /machinist; he especially enjoyed CAD systems that allowed him free rein to create specialized components for a variety of equipment. He loved radio, morse code, computers, music, woodworking, toolmaking, gunsmithing, competitive sports, fishing, cooking. John owned a small acreage in Ravensdale, WA, where he raised, trained for show, several horses. He loved animals, being particularly fond of large dogs, predominately German Shepherds. Cats? Well? I guess there is a limit!

During all of those earlier years though, the single, most poignant focus of John's life was his daughter, Kymberly!

Continued:

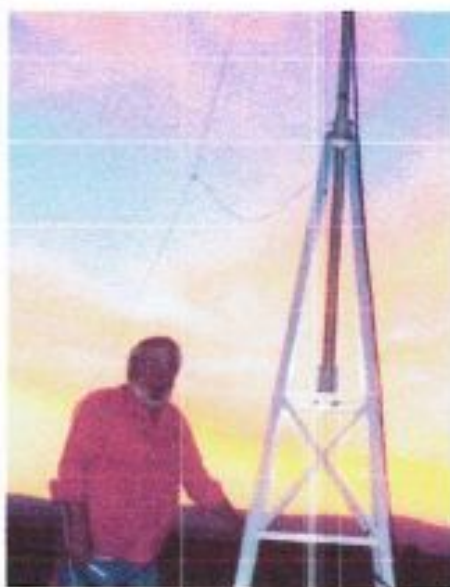
Silent Key—John Joseph Post—AG7J

Kymberly was born July 4, 1962; (as a small child, she sincerely believed the fireworks of that day were celebrations of her birthday!)

Sadly, Kymberly was born as what was then commonly called "blue baby", (a condition arising from incompatible parental Rh blood factors); prognosis for her survival were slim. Doctors opined she could possibly survive six or seven years. Despite numerous illnesses & hospitalizations, Kym lived and she was the center of John's life. He understood every day was a gift to be treasured and celebrated. One year Kymberly, who loved to sing, asked her father to learn guitar to accompany her in a school production. John bought a guitar, took lessons, and did so. Her ultimate graduation from high school was a stellar achievement—a profile of courage and love. Kymberly defied all odds, however at her last hospitalization she told her father she was "very tired" and just wanted to "be free." She passed away in September, 1983, she was 21.

John was also preceded in death by his second wife, Mary (1998).

John is survived by his brother Harrison Post, sister in law Linda Post, niece Kathleen, nephew Josh, numerous cousins and his current wife, Dorothy.



May the Lord Bless you AG7J, and may you meet your Ham friends again in that great & heavenly Ham Shack ..

Rest In Peace